

4641

Service
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Service Manual

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"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

CLASS 1
LASER PRODUCT

3122 110 21220



PHILIPS

PCS 67 856

4641

Specifications

STANDARD TEST CONDITIONS

SUPPLY VOLTAGE: AC 120V, 60 Hz
REFERENCE OUTPUT: 500 mW (Into 8 ohm Load)
AM ANTENNA: IRE Loop
AM STANDARD SIGNAL: 400 Hz, 30% Modulation at 1MHz
FM ANTENNA: 300 ohm Balanced
FM STANDARD SIGNAL: 1 kHz, 75 kHz Deviation at 98 MHz

AM BAND

NOMINAL

Frequency Range 530–1710 kHz
IF Frequency 450 kHz
Usable Sensitivity S/N @20dB 800 μ V/m
IF Rejection at 600 kHz 50 dB
Image Rejection at 1400 kHz 40 dB
AGC Figure of Merit (Ref: 100 mV/m) 45 dB

FM BAND

Frequency Range 87.5–108 MHz
IF Frequency 10.7 MHz
Mono 26 dB/ST. 46 dB Quieting Sensitivity 4/100 μ V
IF Rejection at 90 MHz 70 dB
Image Rejection at 106 MHz 45 dB
AM Suppression 40 dB

AMPLIFIER SECTION

Speaker Impedance: 8 ohms each Channel.

Reference Level: 500 m Watt each Channel.

0.5% THD Power at 1 kHz 55 Watts

Total Harmonic Distortion 0.2% @ Reference level

S/N Ratio 95 dB

Channel Separation (at 1 kHz) 50 dB

Graphic Equalizer Effect:

Base 1 (at 100 Hz)

Boost +10 dB $\pm$ 3 dB

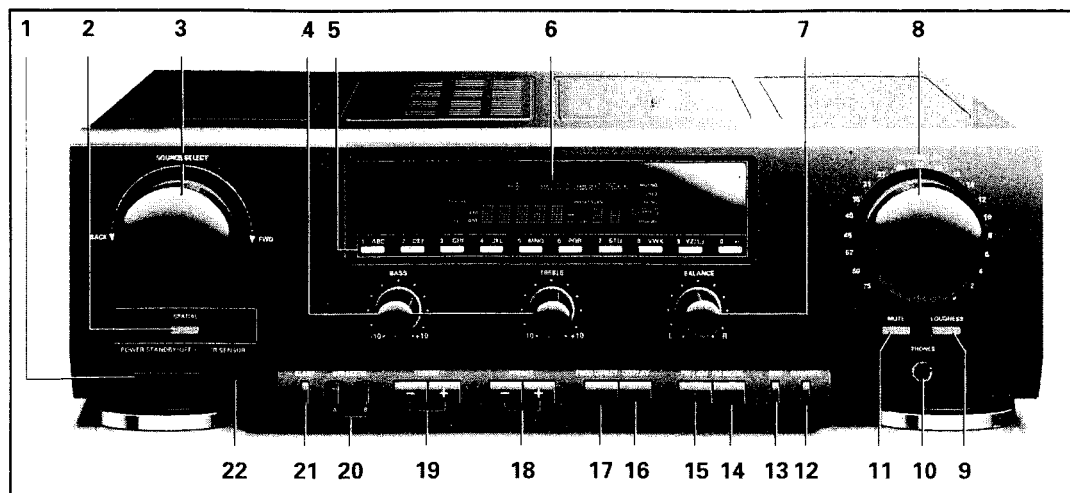
Cut –10 dB $\pm$ 3 dB

Trable 1 (at 10 kHz)

Boost +10 dB $\pm$ 3 dB

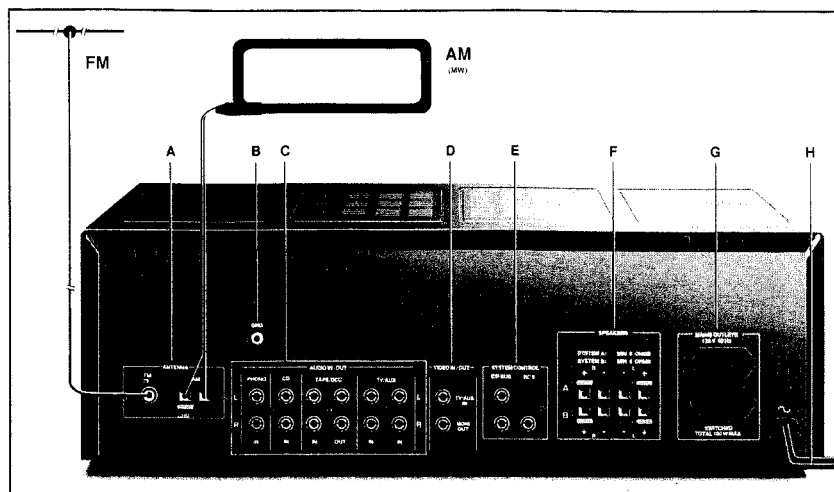
Cut –10 dB $\pm$ 3 dB

Controls & Connections



CONTROLS

- 1 POWER STANDBY/OFF** – for switching on to standby mode and for switching off.
- 2 SPATIAL** – to extend the stereo effect to a spatial stereo sound.
- 3 SOURCE SELECT** – for selecting the desired listening source.
- 4 BASS** – for adjusting the bass tones.
TREBLE – for adjusting the high tones.
- 5 Digit keys**
– for selecting 30 preset stations.
– for entering data when programming station name and when using the direct tuning function.
- 6 Display**
- 7 BALANCE** – for adjusting the balance of the volume between the left and right channels.
- 8 VOLUME** – for adjusting the volume.
- 9 LOUDNESS** – for increasing the treble and bass response at low volume settings.
- 10 PHONES** – socket for stereo headphones
 - You may connect a pair of stereo headphones with 6.3 mm plug to this socket. Inserting the plug will **not** disconnect the speakers.
- 11 MUTE** – for decreasing the volume by 20 dB (= factor 10).
- 12 MEMORY** – for opening and closing the memory when programming preset stations.
- 13 SND (Station Name Display)** – for entering a station name for a tuner preset.
- 14 FM MODE** – for selecting mono or stereo reception.
- 15 FM/AM** – selecting reception of FM or AM (MW) stations.
- 16 DISPLAY** – for selecting the frequency or the station name of a preset station to be shown on the display.
- 17 FREQ(ueency) DIRECT** – for direct tuning to the station frequency.
- 18 PRESET +/-** – for selecting the next or previous tuner preset.
- 19 TUNING +/-** – frequency up/down.
- 20 SPEAKERS A** – for switching on and off a pair of speakers connected to the SPEAKERS A terminals.
SPEAKERS B – for switching on and off a pair of speakers connected to the SPEAKERS B terminals.
- 21 SLEEP** – to set a time period after which the system will automatically be switched to standby (off).
- 22 I(nfra) R(ed) SENSOR** – infrared remote control eye. For receiving signals from the remote control.



CONNECTIONS

A ANTENNA

- **FM 75 Ω** – The FM terminal is used for connection to the Community or Cable Antenna system or to a roof-mounted FM antenna. If none of these are available, you may use the wire supplied for nearby stations (reception could be poor).
- **GND** – terminal for connection of the ground wire of your antenna.
- **AM** – For AM reception connect the supplied wires to the GND and AM antenna terminals (one wire to the GND and one wire to the AM terminal) and position the antenna for best reception.

Note: Do *not* place the AM loop antenna on the unit, as this unit employs a computing device which could cause interference.

- **B PHONO GND $\perp$** – for connecting the earth wire of a record player.

C AUDIO IN/OUT

- **PHONO** – input sockets for connecting a record player with an 'MM' (Moving Magnet) cartridge.
- **CD** – input sockets for connecting a CD (Compact Disc) player.
- **TAPE/DCC** – input and output sockets for connecting a cassette deck or a Digital Compact Cassette deck.
- **TV/AUX** – input sockets for connecting the sound channel of a TV set or video recorder and output sockets for extra sound recording equipment e.g. a cassette or tape deck or a HiFi stereo video recorder.

D VIDEO IN/OUT

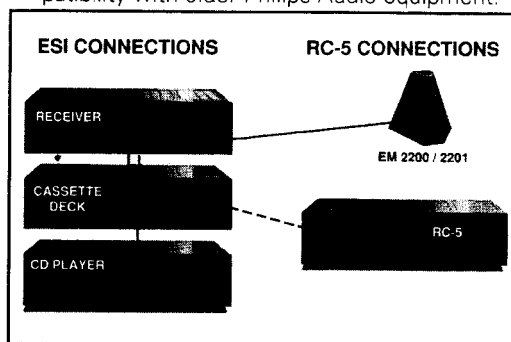
- **TV/AUX IN** – input socket for connecting the video output of a TV set or video recorder.
- **MONI OUT** – output socket for connecting to the video input of a TV set.

E SYSTEM CONTROL

- **ESI BUS** (Enhanced System Intelligence) (coloured green) – Remote-control input/output sockets for connection to the corresponding ESI sockets of other components in your HiFi system (e.g. the Philips 900 series). Connect the ESI socket to the ESI socket of the external equipment that uses the ESI remote control system. Connecting the ESI BUS enables you to operate other components via the FR 920's IR sensor.
- **RC-5 BUS** (coloured orange) – remote-control input/output socket for connection to the corresponding RC-5 socket of a Compact Disc player or remote control receiver e.g. EM 2200/2201.

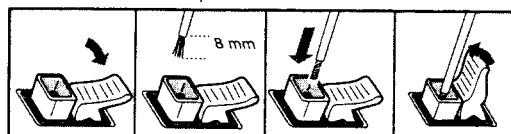
Connect the RC-5 socket to the RC-5 socket of the external equipment that uses the RC-5 remote control system.

This socket has been added to maintain compatibility with older Philips Audio equipment.



F SPEAKERS

- **A** – terminals for connecting a pair of speakers, impedance min. 8 ohms (L = left, R = right)
- **B** – terminals for connecting a second pair of speakers impedance min. 8 ohms (L = left, R = right)
- One of the wires of a loudspeaker cable is marked with a colour or rib. Connect the marked wire to the red terminal, the non-marked wire to the black one. Make sure that all loudspeakers are connected in the same way.



POWER

- **G MAINS OUTLETS** – switched AC power outputs for connecting power plugs from various units such as a cassette deck, CD player, etc. (maximum capacity is 100 W) The position of the AC outlets may vary with different versions.

H Mains lead

After making all the necessary connections (some may not be applicable for your system set-up), your system is ready for use. In the next chapter we will describe how to operate your FR 920 receiver.

GB

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

F

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

NL

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

D

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

I

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

"After servicing and before returning set to customer perform a leakage current measurement test from all exposed metal parts to earth ground to assure no shock hazard exist. The leakage current must not exceed 0.5mA."

S

Varning!

Osynlig laserstrålning när apparaten är öppnad och spärren är urkopplad. Betrakta ej strålen.

SF

Varo!

Avatussa laitteessa ja suojauslaituksen ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen!

GB

WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically. When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

ESD



NL

WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD). Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat. Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

F

ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD). Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation. Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité. Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

D

WARNUNG

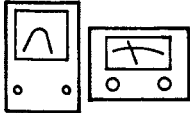
Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD). Unsorgfältige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren. Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes. Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

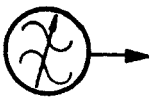
I

AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD). La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza. Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

Alignment & Adjustment

SK...						
IF Alignment						
AM	530kHz	A	530kHz	T101	*1	MAX
FM	87.5MHz	B	87.5MHz	T102	*2	0.0V
RF Alignment						
AM	530kHz	A	530kHz	L102	*3	$1.2X \pm 0.05V$
AM	1720kHz	A	1720kHz	TC102	*3	$8.5V \pm 0.05V$
FM	87.5MHz	B	87.5MHz	—	*3	$1.2V \pm 0.05V$
FM	108MHz	B	108MHz	—	*3	7.5V
Sensitivity Alignment						
AM	600kHz	A	600kHz	L101	*4	↑MAX.
AM	1400kHz	A	1400kHz	TC101	*4	↑MAX.
FM	90MHz	B	90MHz	—	*4	↑MAX.
FM	106MHz	B	106MHz	—	*4	↑MAX.

SK...						
T. H. D. Adjustment						
FM	98MHz MOD. = 1kHz DEV. = 75kHz	B #1		T102	*5	0.0V
FM	98MHz MOD. = 1kHz DEV. = 75kHz	B #1		T103	*5	T.H.D MIN.
Auto Tuning Sensitivity Adjustment						
FM	98MHz/20dB	B	98MHz	SFR102	*4	LOCK AT 20dB
AM	1000kHz/60dB	A	1000kHz	SFR101	*4	LOCK AT 60dB
MPX Separation Adjustment						
FM	98MHz	B	98MHz	SFR103	*4	SEPARATION OVER 30dB

*1 Across TP7 & TP5
 *2 Across TP6 & TP5
 *3 Across TP1 & TP2
 *4 Across Speaker Output

*5 Across TP3 & TP4
 #1 See Fig. 3

Repeat ↑

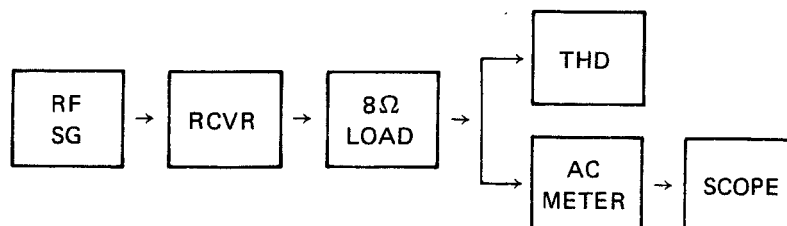


Figure 3

Main Board Test Point

Main P C Board

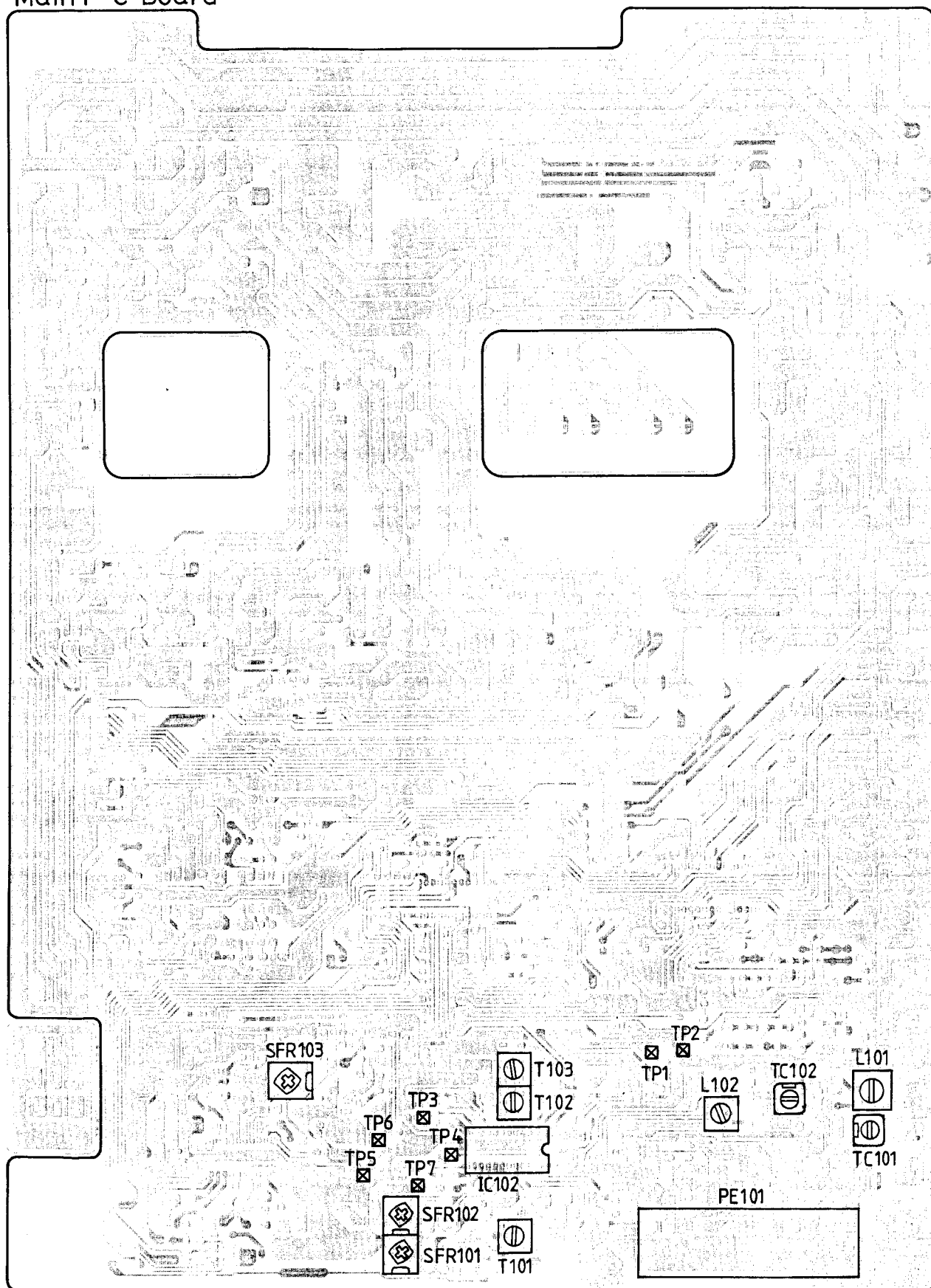
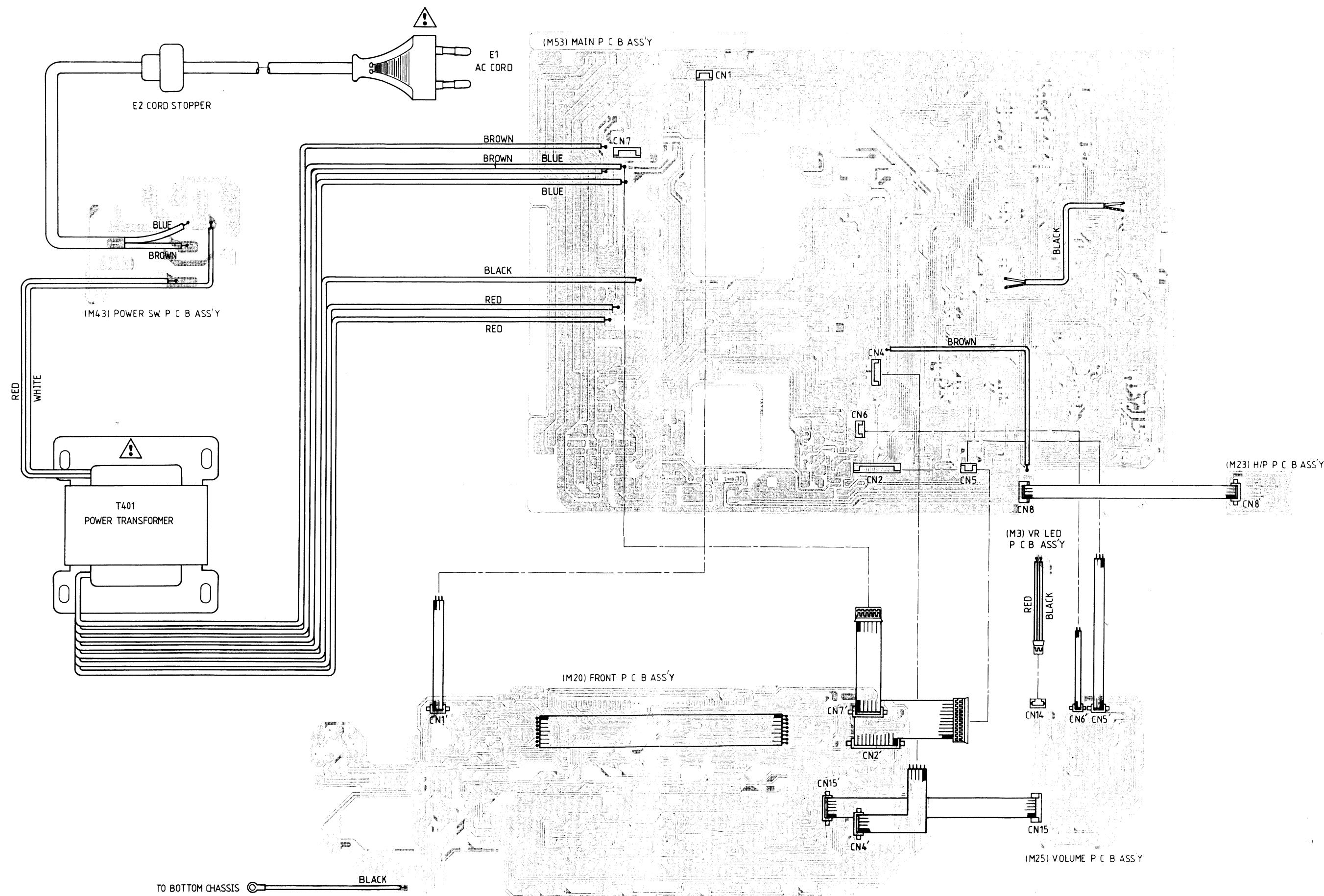
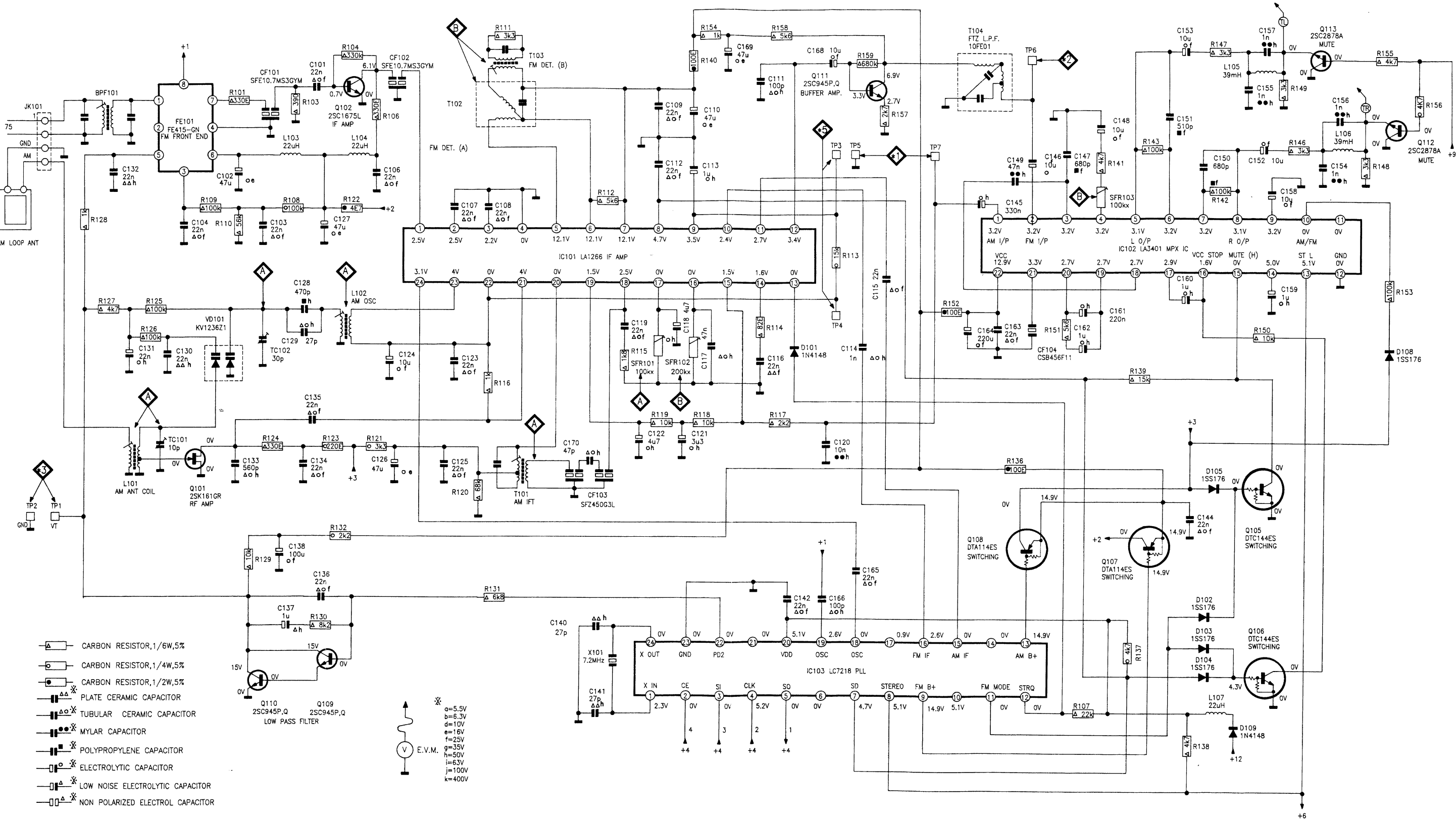


Figure 4

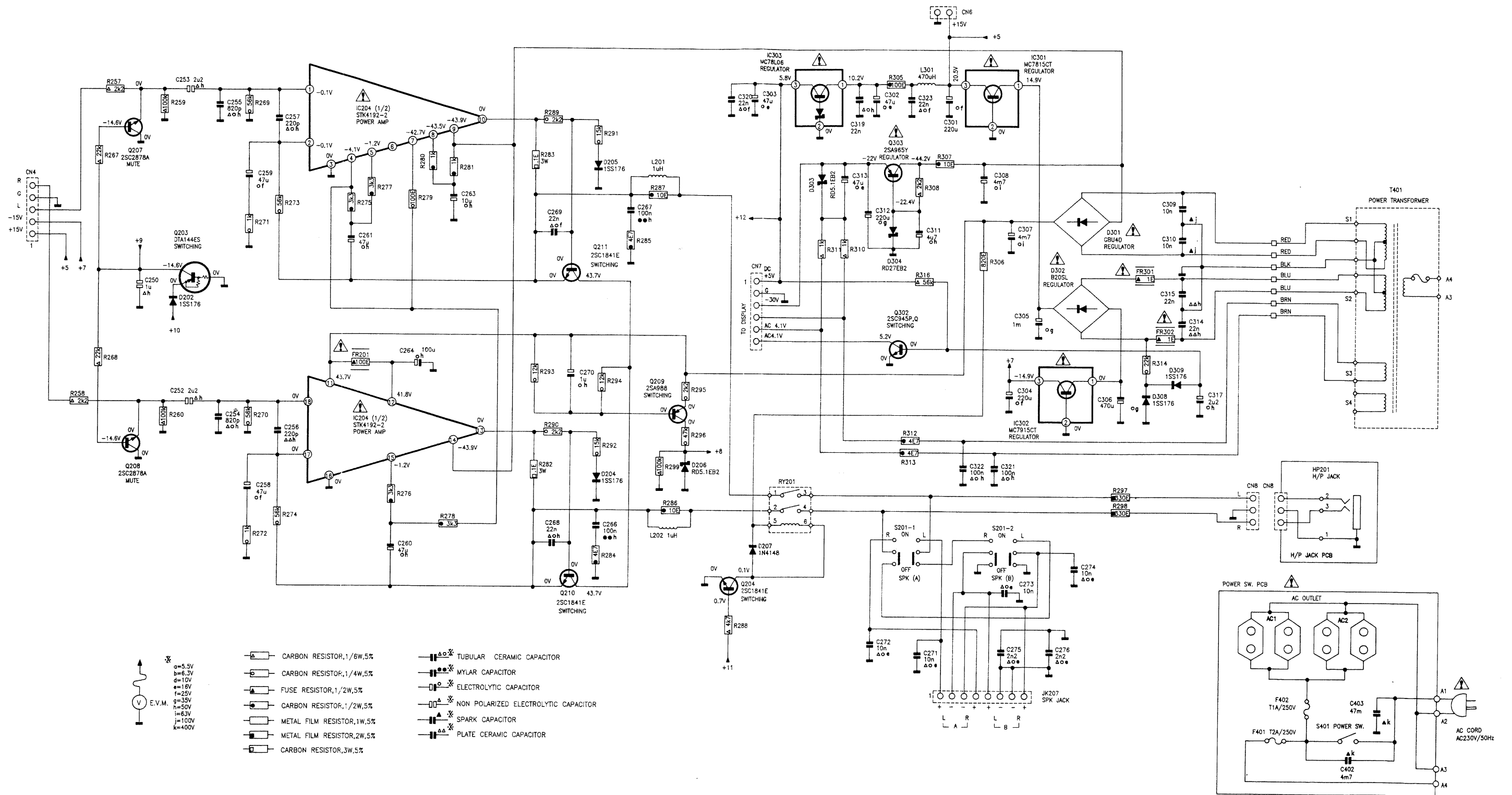
Wiring Diagram-Component Side

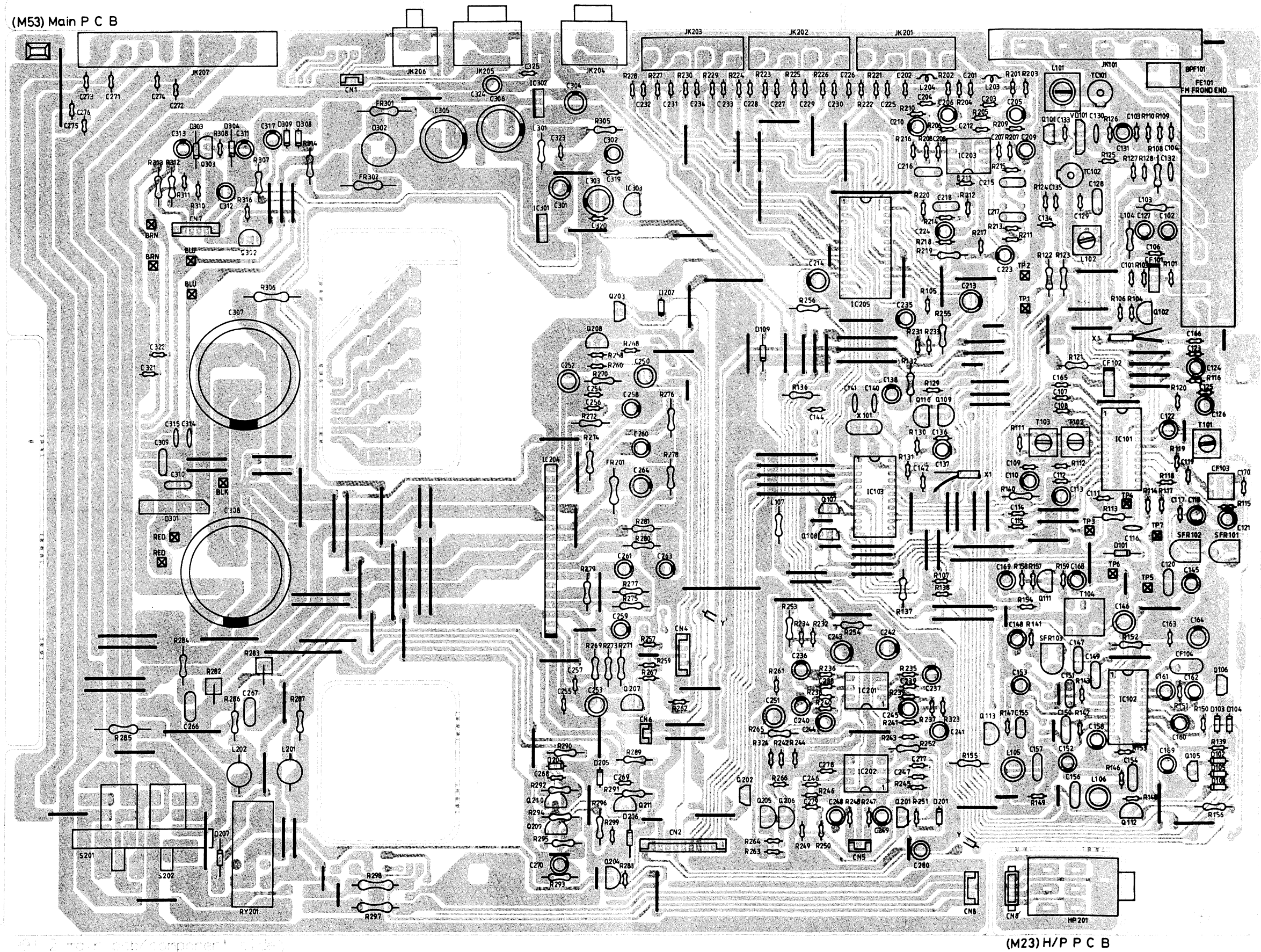


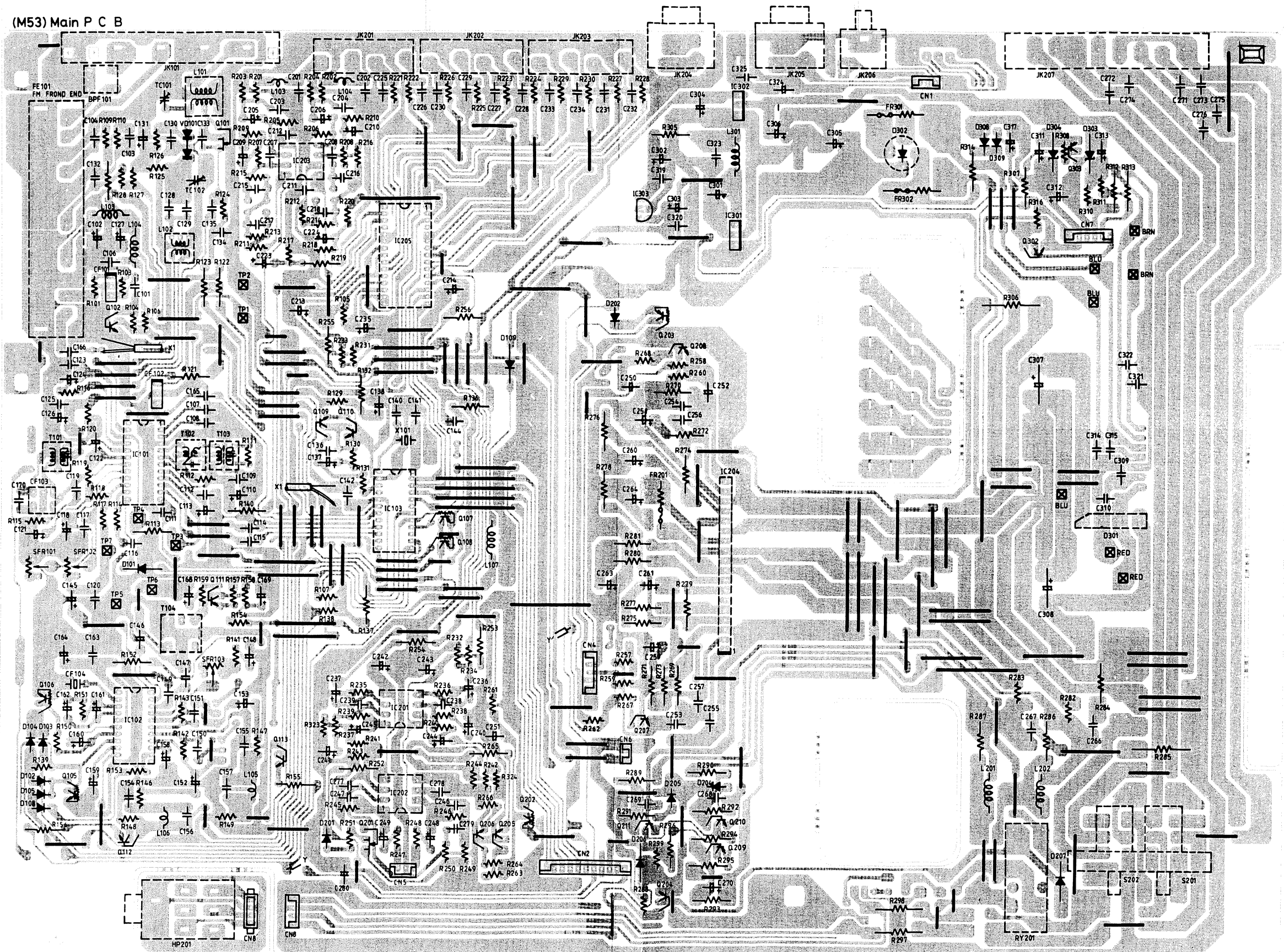
Schematic Diagram-Tuner



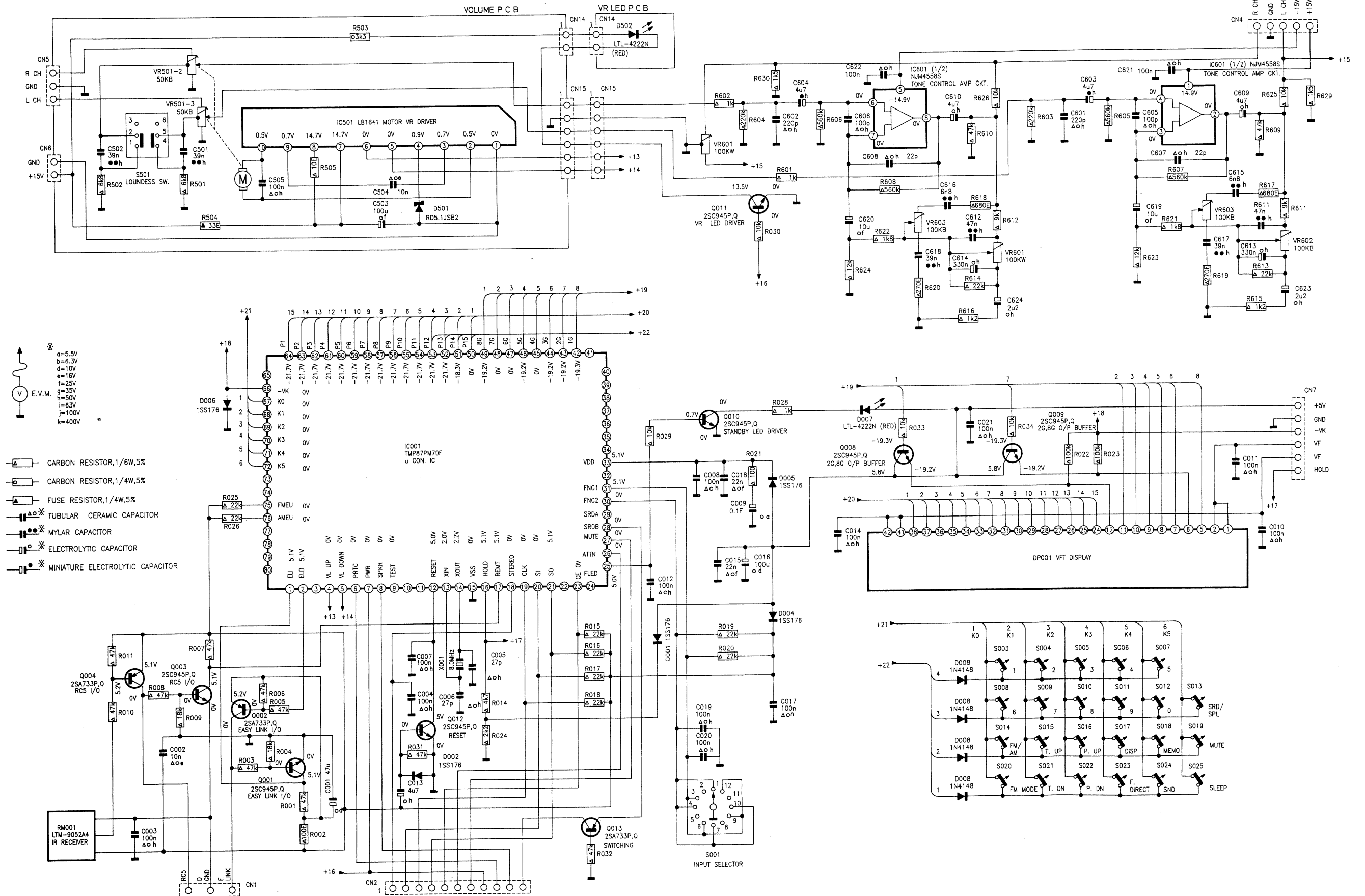
Schematic Diagram-Power Amp





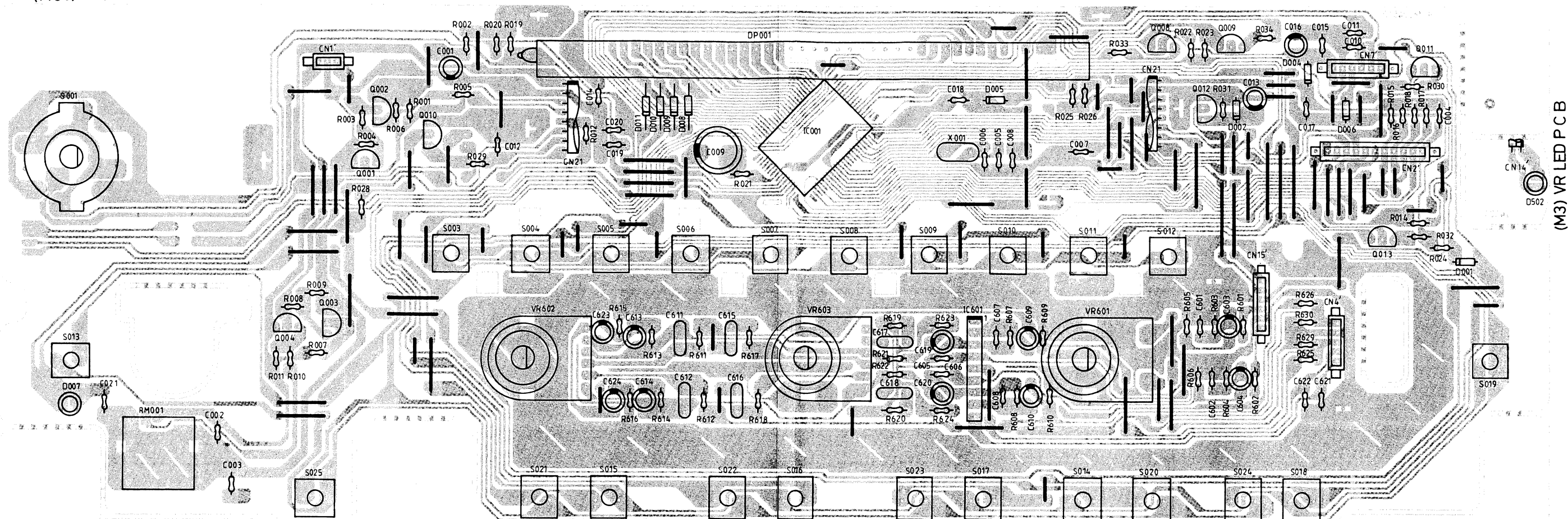


Schematic Diagram-Front

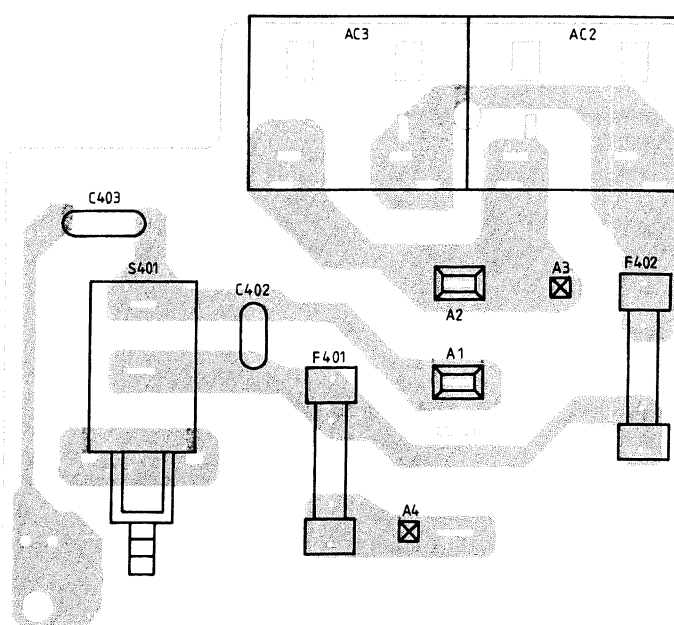


P C Board-Component Side

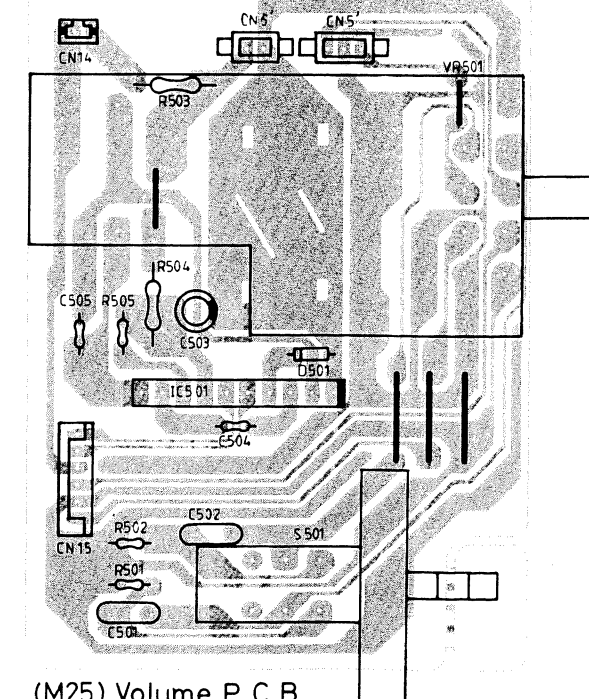
(M30) Front P C B



(M3) VR LED PCB



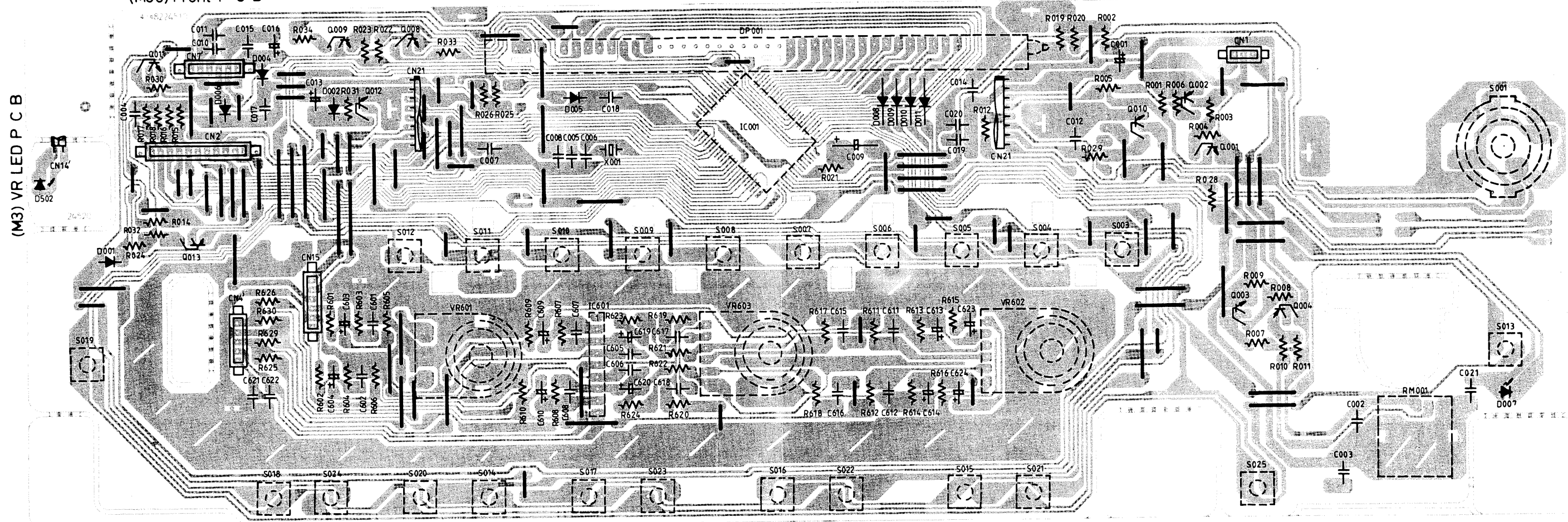
(M43) Power SW. P C B



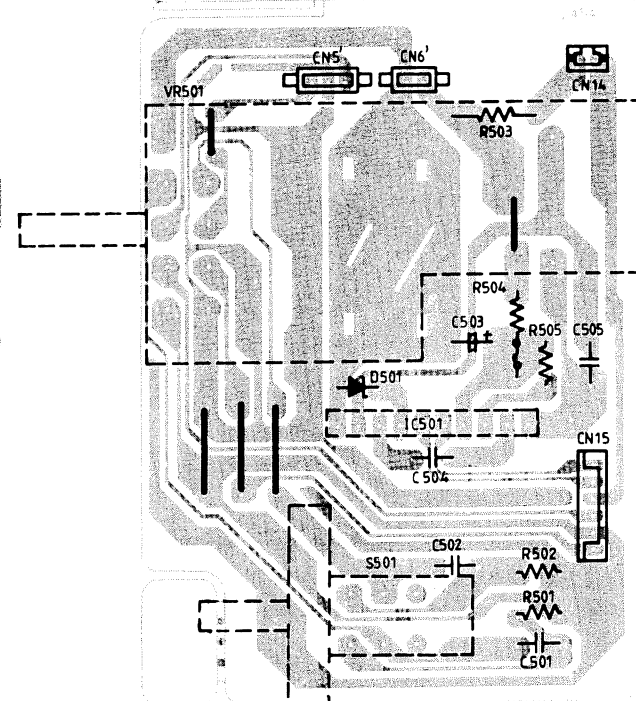
(M25) Volume P C B

P C Board-Solder Side

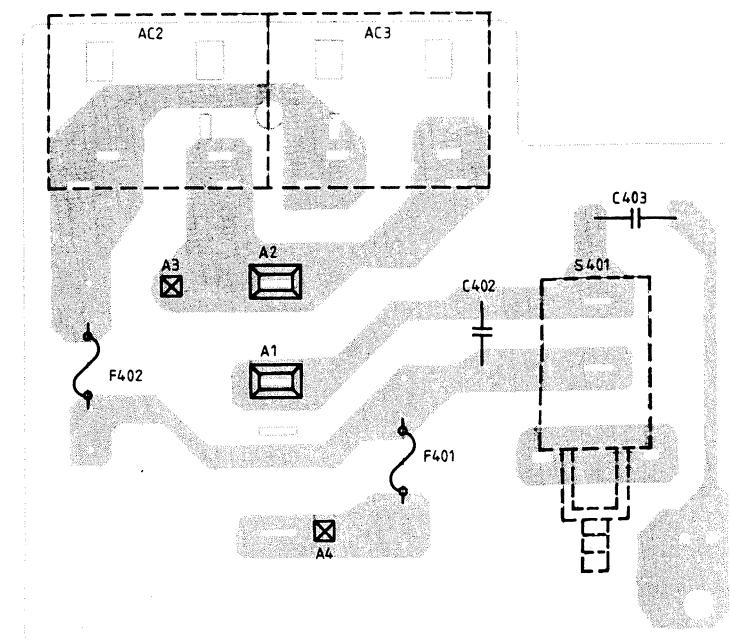
(M30) Front P C B



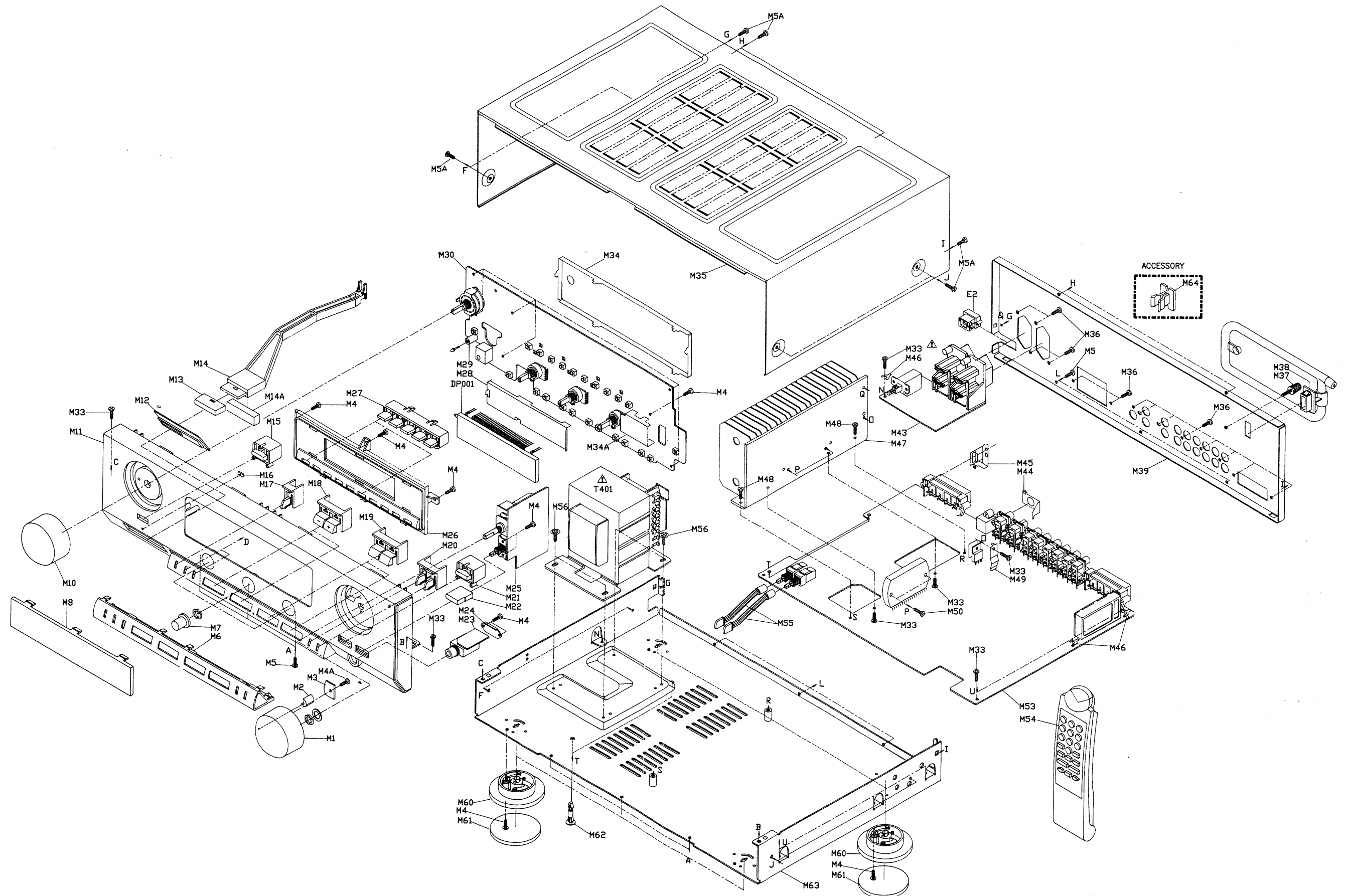
...J(M25) Volume P C B



(M43) Power SW. P C B



Mechanical Exploded View



Mechanical Parts List

Ref.	Description	Part No.	Ref.	Description	Part No.
M1	Volume knob	4822 413 51444	M35	Top cover	4822 426 40454
M2	Volume lens	4822 381 11388	M36	7 (Taptite-P) BID3010 ZN3K (14 used)	4822 502 30716
M3	VR LED PCB assembly	-----	M37	Gnd knob Q3	4822 413 90097
M4	7 (Taptite-P) BID3010 ZN3A (18 used)	4822 426 51619	M38	Ant holder	-----
M4A	7 (Taptite-P) BID3008 ZN3A	4822 502 30711	M39	Back board	-----
M5	9 (Taptite-B) BID3008 ZN3K (6 used)	4822 502 30714	M43	Power switch PCB assembly	-----
M5A	9 (Taptite-B) CUP3008 ZN3K (8 used)	4822 502 30715	M44	Earth terminal (S)	-----
M6	Front nose	4822 459 40728	M45	Earth terminal (R)	-----
M7	Tone knob (3 used)	4822 413 31728	M46	Earth washer (3 used)	4822 530 80692
M8	Display window	4822 450 62018	M47	Heat sink assembly	4822 255 41283
M10	Select knob	4822 413 51445	M48	2 (Machine-ISO) BID3010 ZN3A (2 used)	4822 502 21308
M11	Front escutcheon	4822 426 51621	M49	Transistor IC holder	4822 255 41285
M12	IR window assembly	4822 450 62017	M50	9 (Taptite-B) BID3014 ZN3A (2 used)	4822 502 30717
M13	Power knob	4822 410 62451	M53	Main PCB assembly	-----
M14	Power joint	4822 404 10877	M54	Remote transmitter assembly	4822 218 10503
M14A	Knob spacer	4822 466 93224	M55	Speaker knob (2 used)	4822 410 62474
M15	Surround button	4822 410 62457	M56	6 (Taptite-S) CUP4006 ZN3A (4 used)	4822 502 30709
M16	Power lens	4822 381 11387	M60	Foot (4 used)	4822 462 41999
M17	Sleep button	4822 410 62454	M61	Sole plate (4 used)	4822 466 62312
M18	Function button (A) (2 used)	4822 410 62452	M62	Spacer support A (2 used)	4822 404 21256
M19	Function button (B) (2 used)	4822 410 62453	M63	Bottom chassis	-----
M20	Memory button	4822 410 62455	M64	Aux antenna holder	4822 256 92029
M21	Muting button	4822 410 62456	MISCELLANEOUS		
M22	Lound knob	4822 410 62473	A1	Snow box (R)	-----
M23	H/P jack PCB assembly	-----	A2	Snow box (L)	-----
M24	Phone jack holder	4822 267 31617	A3	Gift box	-----
M25	Volume PCB assembly	-----	A4	Poly bag 60x60	-----
M26	Window base	-----	A5	Soft sheet 20x110cm	-----
M27	Preset button (2 used)	4822 410 62472	A6	Instruction book	4822 736 21652
M28	F.T.D. holder	4822 256 92031	A7	Serial No. label (BLK)	-----
M29	LED holder (305)	4822 255 41284	A8	Serial No. label (WHT) (2 used)	-----
M30	Front PCB assembly	-----	A9	G/B label	-----
M33	9 (Taptite-B) BID3008 ZN3A (9 used)	4822 502 30713	A10	Poly bag 18x30 (1/B)	-----
M34	Shield plate	-----			
M34A	Shield plate (T)	-----			

Note: ---- - - - - - Indicates a not normally stocked item.

Replacement Parts List

Ref.	Description	Part No.	Ref.	Description	Part No.
COILS & TRANSFORMER			CAPACITORS (Continued)		
L101	AM ANT coil TWS-358-638	4822 156 21683	C103	.022uF/25V (Z)	4822 126 12547
L102	AM OSC coil	4822 156 21685	C104	.022uF/25V (Z)	4822 126 12547
L103	Peaking coil 220K	4822 157 70206	C106	.022uF/25V (Z)	4822 126 12547
L104	Peaking coil 220K	4822 157 70206	C107	.022uF/25V (Z)	4822 126 12547
L105	Inductance 393K	4822 156 21684	C108	.022uF/25V (Z)	4822 126 12547
L106	Inductance 393K	4822 156 21684	C109	.022uF/25V (Z)	4822 126 12547
L107	Peaking coil 220K	4822 157 70206	C110	47uF/16V (M) Electrolytic	4822 124 40433
L201	Spring coil 1.0uH	4822 157 70362	C111	100pF/50V (K)	4822 126 12532
L202	Spring coil 1.0uH	4822 157 70362	C112	.022uF/25V (Z)	4822 126 12547
L203	Ring coil 3.7mH	4822 157 70364	C113	1uF/50V (M) Electrolytic	4822 124 40242
L204	Ring coil 3.7mH	4822 157 70364	C114	.001uF/50V (K)	4822 126 12533
L301	Peaking coil 471K	4822 157 70363	C115	.022uF/25V (Z)	4822 126 12547
BPF101	FM antenna coil PC8474-1	4822 157 60042	C116	.022uF (Z) Ceramic	4822 126 12531
T101	AM IFT R22-E792	4822 157 60039	C117	.047uF/50V (Z)	4822 126 12541
T102	FM DET (A) TWS-358-636	4822 156 21686	C118	4.7uF/50V (M) Electrolytic	4822 124 80431
T103	FM DET (B) TWS-358-637	4822 156 21687	C119	.022uF/25V (Z)	4822 126 12547
T104	FTZ L.P.F. 10FE01	4822 156 21682	C120	.01uF (J) Mylar	4822 121 41857
X001	Ceramic resonator CSA8.00MT	5322 242 72897	C121	3.3uF/50V (M) Electrolytic	4822 124 80428
CF101	Ceramic filter SFE10.7 MS3GYM (Red)	4822 242 72243	C122	4.7uF/50V (M) Electrolytic	4822 124 80431
CF102	Ceramic filter SFE10.7 MS3GYM (Red)	4822 242 72243	C123	.022uF/25V (Z)	4822 126 12547
CF103	Ceramic filter SFZ450G3L	4822 242 81377	C124	10uF/25V (M) Electrolytic	4822 124 40248
CF104	Resonator CSB456F11	4822 242 81117	C125	.022uF/25V (Z)	4822 126 12547
T401	Power trans. EI-86	4822 146 40403	C126	47uF/16V (M) Electrolytic	4822 124 40433
CAPACITORS			C127	47uF/16V (M) Electrolytic	4822 124 40433
Note: All capacitors are Multi-layer ceramic unless otherwise noted.			C128	470pF (J) Polypropylene	4822 121 70257
C=±0.25pF D=±0.5pF J=±5% K=±10%			C129	27pF/50V (J)	4822 126 12543
Z=+80/-20%			C130	.022uF (Z) Ceramic	4822 126 12531
CH: Temperature compensation capacitor, temperature draft within 0±60PPM/°C.			C131	.22uF/50V (M) Electrolytic	4822 124 40746
TC101	Trimmer ceramic 10pF	4822 125 50628	C132	.022uF (Z) Ceramic	4822 126 12531
TC102	Trimmer ceramic 10pF	or 4822 125 60134	C133	560pF/50V (K)	4822 126 12536
TC102	Trimmer ceramic 30pF	4822 125 50634	C134	.022uF/25V (Z)	4822 126 12547
C001	Trimmer ceramic 30pF	or 4822 125 60135	C135	.022uF/25V (Z)	4822 126 12547
C001	47uF/10V (M) Electrolytic	4822 124 80429	C136	.022uF/25V (Z)	4822 126 12547
C002	.01uF/16V (K)	4822 126 12545	C137	1uF/50V (M) Electrolytic "LN"	4822 124 40244
C003	.1uF/50V (Z)	4822 126 12539	C138	100uF/25V (M) Electrolytic	4822 124 40207
C004	.1uF/50V (Z)	4822 126 12539	C140	27pF (J) "CH"	5322 122 32776
C005	27pF/50V (J)	4822 126 12543	C141	27pF (J) "CH"	5322 122 32776
C006	27pF/50V (J)	4822 126 12543	C142	.022uF/25V (Z)	4822 126 12547
C007	.1uF/50V (Z)	4822 126 12539	C144	.022uF/25V (Z)	4822 126 12547
C008	.1uF/50V (Z)	4822 126 12539	C145	.33uF/50V (M) Electrolytic	4822 124 40748
C009	0.1uF/5.5V (Z) Gold	4822 124 80438	C146	10uF/25V (M) Electrolytic "NON"	4822 124 80434
C010	.1uF/50V (Z)	4822 126 12539	C147	680pF (J) Polypropylene	4822 121 70258
C011	.1uF/50V (Z)	4822 126 12539	C148	10uF/25V (M) Electrolytic	4822 124 40248
C012	.1uF/50V (Z)	4822 126 12539	C149	.047uF (J) Mylar	4822 121 43526
C013	4.7uF/50V (M) Electrolytic	4822 124 80431	C150	680pF (J) Polypropylene	4822 121 70258
C014	.1uF/50V (Z)	4822 126 12539	C151	680pF (J) Polypropylene	4822 121 70258
C015	.022uF/25V (Z)	4822 126 12547	C152	10uF/25V (M) Electrolytic	4822 124 40248
C016	100uF/10V (M) Electrolytic	4822 124 80426	C153	10uF/25V (M) Electrolytic	4822 124 40248
C017	.1uF/50V (Z)	4822 126 12539	C154	.001uF (J) Mylar	4822 121 43897
C018	.022uF/25V (Z)	4822 126 12547	C155	.001uF (J) Mylar	4822 121 43897
C019	.1uF/50V (Z)	4822 126 12539	C156	.001uF (J) Mylar	4822 121 43897
C020	.1uF/50V (Z)	4822 126 12539	C157	.001uF (J) Mylar	4822 121 43897
C021	.1uF/50V (Z)	4822 126 12539	C158	10uF/25V (M) Electrolytic	4822 124 40248
C101	.022uF/25V (Z)	4822 126 12547	C159	1uF/50V (M) Electrolytic	4822 124 40242
C102	47uF/16V (M) Electrolytic	4822 124 40433	C160	1uF/50V (M) Electrolytic	4822 124 40242
			C161	.22uF/50V (M) Electrolytic	4822 124 40746
			C162	1uF/50V (M) Electrolytic	4822 124 40242
			C163	.022uF/25V (Z)	4822 126 12547

Replacement Parts List (Continued)

Ref.	Description	Part No.	Ref.	Description	Part No.
CAPACITORS (Continued)			CAPACITORS (Continued)		
C164	220uF/25V (M) Electrolytic	4822 124 41716	C255	820pF/50V (K)	4822 126 1253
C165	.022uF/25V (Z)	4822 126 12547	C256	220pF/50V (K)	4822 126 1253
C166	100pF/50V (K)	4822 126 12532	C257	220pF/50V (K)	4822 126 1253
C168	10uF/25V (M) Electrolytic	4822 124 40248	C258	47uF/25V (M) Electrolytic	4822 124 4043
C169	47uF/16V (M) Electrolytic	4822 124 40433	C259	47uF/25V (M) Electrolytic	4822 124 4043
C170	47pF/50V (J)	4822 126 12544	C260	47uF/50V (M) Electrolytic	4822 124 4024
C201	100pF/50V (K)	4822 126 12532	C261	47uF/50V (M) Electrolytic	4822 124 4024
C202	100pF/50V (K)	4822 126 12532	C263	10uF/50V (M) Electrolytic	4822 124 4024
C203	100pF/50V (K)	4822 126 12532	C264	100uF/50V (M) Electrolytic	4822 124 4025
C204	100pF/50V (K)	4822 126 12532	C266	.1uF (J) Mylar	4822 121 7025
C205	1uF/50V (M) Electrolytic	4822 124 40242	C267	.1uF (J) Mylar	4822 121 7025
C206	1uF/50V (M) Electrolytic	4822 124 40242	C268	.022uF/25V (Z)	4822 126 1254
C207	100pF/50V (K)	4822 126 12532	C269	.022uF/25V (Z)	4822 126 1254
C208	100pF/50V (K)	4822 126 12532	C270	1uF/50V (M) Electrolytic	4822 124 4024
C209	22uF/16V (M) Electrolytic	5322 124 41431	C271	.01uF/16V (K)	4822 126 1254
C210	22uF/16V (M) Electrolytic	5322 124 41431	C272	.01uF/16V (K)	4822 126 1254
C211	.022uF/25V (Z)	4822 126 12547	C273	.01uF/16V (K)	4822 126 1254
C212	.022uF/25V (Z)	4822 126 12547	C274	.01uF/16V (K)	4822 126 1254
C213	100uF/25V (M) Electrolytic	4822 124 40207	C275	.0022uF/16V (K)	4822 126 1254
C214	100uF/25V (M) Electrolytic	4822 124 40207	C276	.0022uF/16V (K)	4822 126 1254
C215	.0047uF (J) Mylar	4822 121 70262	C277	100pF/50V (K)	4822 126 1253
C216	.0047uF (J) Mylar	4822 121 70262	C278	100pF/50V (K)	4822 126 1253
C217	.0015uF (J) Mylar	5322 121 70042	C279	680pF/50V (K)	4822 126 1253
C218	.0015uF (J) Mylar	5322 121 70042	C280	1uF/50V (M) Electrolytic "NON"	4822 124 8043
C223	4.7uF/50 (M) Electrolytic	4822 124 80431	C301	220uF/25V (M) Electrolytic	4822 124 4171
C224	4.7uF/50 (M) Electrolytic	4822 124 80431	C302	47uF/16V (M) Electrolytic	4822 124 4043
C225	100pF/50V (K)	4822 126 12532	C303	47uF/16V (M) Electrolytic	4822 124 4043
C226	100pF/50V (K)	4822 126 12532	C304	220uF/25V (M) Electrolytic	4822 124 4171
C227	100pF/50V (K)	4822 126 12532	C305	1000uF/35V (M) Electrolytic	4822 124 8042
C228	100pF/50V (K)	4822 126 12532	C306	470uF/35V (M) Electrolytic	4822 124 4133
C229	100pF/50V (K)	4822 126 12532	C307	4700uF/63V (M) Electrolytic "TSW"	4822 124 8043
C230	100pF/50V (K)	4822 126 12532	C308	4700uF/63V (M) Electrolytic "TSW"	4822 124 8043
C231	100pF/50V (K)	4822 126 12532	C309	.01uF F:5mm (Z) Ceramic	4822 126 1252
C232	100pF/50V (K)	4822 126 12532	C310	.01uF F:5mm (Z) Ceramic	4822 126 1252
C233	100pF/50V (K)	4822 126 12532	C311	4.7uF/50V (M) Electrolytic	4822 124 8043
C234	100pF/50V (K)	4822 126 12532	C312	220uF/35V (M) Electrolytic	4822 124 4171
C235	4.7uF/50V (M) Electrolytic	4822 124 80431	C313	47uF/16V (M) Electrolytic	4822 124 4043
C236	4.7uF/50V (M) Electrolytic	4822 124 80431	C314	.022uF (Z) Ceramic	4822 126 1253
C237	4.7uF/50V (M) Electrolytic	4822 124 80431	C315	.022uF (Z) Ceramic	4822 126 1253
C238	100pF/50V (K)	4822 126 12532	C317	2.2uF/50V (M) Electrolytic	4822 124 4024
C239	100pF/50V (K)	4822 126 12532	C319	.022uF/25V (Z)	4822 126 1254
C240	47uF/25V (M) Electrolytic	4822 124 40433	C320	.022uF/25V (Z)	4822 126 1254
C241	47uF/25V (M) Electrolytic	4822 124 40433	C321	.1uF/50V (Z)	4822 126 1253
C242	100uF/25V (M) Electrolytic	4822 124 40207	C322	.1uF/50V (Z)	4822 126 1253
C243	100uF/25V (M) Electrolytic	4822 124 40207	C323	.022uF/25V (Z)	4822 126 1254
C244	4.7uF/50V (M) Electrolytic	4822 124 80431	C324	10uF/25V (M) Electrolytic "NON"	4822 124 8043
C245	4.7uF/50V (M) Electrolytic	4822 124 80431	C325	.1uF/50V (Z)	4822 126 1253
C246	470pF/50V (K)	4822 126 12535	C402	4700pF/AC400V (Z) Spark "L"	4822 124 2201
C247	470pF/50V (K)	4822 126 12535	C403	470pF/AC400V (Z) Spark	4822 121 7026
C248	4.7uF/50V (M) Electrolytic	4822 124 80431	C501	.039uF (J) Mylar	4822 121 7026
C249	4.7uF/50V (M) Electrolytic	4822 124 80431	C502	.039uF (J) Mylar	4822 121 7026
C250	1uF/50V (M) Electrolytic "NON"	4822 124 80435	C503	100uF/25V (M) Electrolytic	4822 124 4020
C251	1uF/50V (M) Electrolytic "NON"	4822 124 80435	C504	.01uF/16V (K)	4822 126 1254
C252	2.2uF/50V (M) Electrolytic "NON"	4822 124 80436	C505	.1uF/50V (Z)	4822 126 1253
C253	2.2uF/50V (M) Electrolytic "NON"	4822 124 80436	C601	220pF/50V (J)	4822 126 1253
C254	820pF/50V (K)	4822 126 12538	C602	220pF/50V (J)	4822 126 1253

Replacement Parts List (Continued)

Ref.	Description	Part No.	Ref.	Description	Part No.
CAPACITORS (Continued)			RESISTORS (Continued)		
C603	4.7uF/50V (M) Electrolytic "MINI"	4822 124 80433	R034	10K ohm	4822 051 51003
C604	4.7uF/50V (M) Electrolytic "MINI"	4822 124 80433	R101	330 ohm	4822 051 53301
C605	100pF/50V (J)	4822 126 12532	R103	390 ohm	4822 116 52222
C606	100pF/50V (J)	4822 126 12532	R104	330K ohm	4822 116 52272
C607	22pF/50V (J)	4822 126 12542	R105	1K ohm	4822 051 51002
C608	22pF/50V (J)	4822 126 12542	R106	330 ohm	4822 051 53301
C609	4.7uF/50V (M) Electrolytic	4822 124 80431	R107	22K ohm	4822 051 52203
C610	4.7uF/50V (M) Electrolytic	4822 124 80431	R108	100K ohm, 1/4W	4822 050 21004
C611	.047uF (J) Mylar	4822 121 43526	R109	100K ohm	4822 051 51004
C612	.047uF (J) Mylar	4822 121 43526	R110	56K ohm	4822 051 55603
C613	.33uF/50V (M) Electrolytic	4822 124 40748	R111	3.3K ohm	4822 051 53302
C614	.33uF/50V (M) Electrolytic	4822 124 40748	R112	5.6K ohm	4822 051 55602
C615	.0068uF (J) Mylar	4822 121 70263	R113	27K ohm, 1/4W	4822 050 22703
C616	.0068uF (J) Mylar	4822 121 70263	R114	82 ohm	4822 051 58201
C617	.039uF (J) Mylar	4822 121 70261	R115	1.8K ohm	4822 051 51802
C618	.039uF (J) Mylar	4822 121 70261	R116	1K ohm	4822 051 51002
C619	10uF/25V (M) Electrolytic	4822 124 40248	R117	2.2K ohm	4822 051 52202
C620	10uF/25V (M) Electrolytic	4822 124 40248	R118	10K ohm	4822 051 51003
C621	.1uF/50V (Z)	4822 126 12539	R119	10K ohm	4822 051 51003
C622	.1uF/50V (Z)	4822 126 12539	R120	68K ohm	4822 051 56803
C623	2.2uF/50V (M) Electrolytic	4822 124 40244	R121	3.3K ohm, 1/4W	4822 050 23302
C624	2.2uF/50V (M) Electrolytic	4822 124 40244	R122	4.7 ohm, 1/2W Metal (Flame-proof)	4822 117 10193
RESISTORS			R123	220 ohm, 1/4W	4822 051 52201
Note: All resistors are carbon film, ±5% and 1/6 watt, unless otherwise noted.			R124	330 ohm	4822 051 53301
R001	47K ohm	4822 051 54703	R125	100K ohm	4822 051 51004
R002	100 ohm	4822 051 51001	R126	100K ohm	4822 051 51004
R003	47K ohm	4822 051 54703	R127	4.7K ohm	4822 051 54702
R004	18K ohm	4822 051 51803	R128	1K ohm	4822 051 51002
R005	47K ohm	4822 051 54703	R129	10K ohm	4822 051 51003
R006	47K ohm	4822 051 54703	R130	8.2K ohm	4822 051 58202
R007	47K ohm	4822 051 54703	R131	6.8K ohm	4822 051 56802
R008	47K ohm	4822 051 54703	R132	2.2K ohm, 1/4W	4822 050 22202
R009	18K ohm	4822 051 51803	R136	100 ohm, 1/2W Metal (Flame-proof)	4822 117 10189
R010	47K ohm	4822 051 54703	R137	4.7K ohm, 1/4W	4822 050 24702
R011	47K ohm	4822 051 54703	R138	4.7K ohm	4822 051 54702
R014	4.7K ohm	4822 051 54702	R139	15K ohm	4822 051 51503
R015	22K ohm	4822 051 52203	R140	100 ohm, 1/2W Metal (Flame-proof)	4822 117 10189
R016	22K ohm	4822 051 52203	R141	4.7K ohm	4822 051 54702
R017	22K ohm	4822 051 52203	R142	68K ohm	4822 051 56803
R018	22K ohm	4822 051 52203	R143	68K ohm	4822 051 56803
R019	22K ohm	4822 051 52203	R146	3.3K ohm	4822 051 53302
R020	22K ohm	4822 051 52203	R147	3.3K ohm	4822 051 53302
R021	100 ohm	4822 051 51001	R148	3.3K ohm	4822 051 53302
R022	100K ohm	4822 051 51004	R149	3.3K ohm	4822 051 53302
R023	100K ohm	4822 051 51004	R150	10K ohm	4822 051 51003
R024	2.2K ohm	4822 051 52202	R151	5.6K ohm	4822 051 55602
R025	22K ohm	4822 051 52203	R152	100 ohm, 1/2W Metal (Flame-proof)	4822 117 10189
R026	22K ohm	4822 051 52203	R153	100K ohm	4822 051 51004
R028	1K ohm	4822 051 51002	R154	1K ohm	4822 051 51002
R029	10K ohm	4822 051 51003	R155	4.7K ohm, 1/4W	4822 050 24702
R030	10K ohm	4822 051 51003	R156	4.7K ohm, 1/4W	4822 050 24702
R031	47K ohm	4822 051 54703	R157	2.7K ohm	4822 051 52702
R032	47K ohm	4822 051 54703	R158	5.6K ohm	4822 051 55602
R033	10K ohm	4822 051 51003	R159	680K ohm	4822 116 52298

Replacement Parts List (Continued)

Ref.	Description	Part No.	Ref.	Description	Part No.
RESISTORS (Continued)			RESISTORS (Continued)		
R201	150 ohm	4822 051 51501	R257	2.2K ohm	4822 051 52202
R202	150 ohm	4822 051 51501	R258	2.2K ohm	4822 051 52202
R203	560K ohm	4822 051 55604	R259	100K ohm	4822 051 51004
R204	560K ohm	4822 051 55604	R260	100K ohm	4822 051 51004
R205	56K ohm	4822 051 55603	R261	180K ohm	4822 116 52213
R206	56K ohm	4822 051 55603	R262	180K ohm	4822 116 52213
R207	1K ohm	4822 051 51002	R263	22K ohm	4822 051 52203
R208	1K ohm	4822 051 51002	R264	22K ohm	4822 051 52203
R209	100K ohm	4822 051 51004	R265	220 ohm, 1/4W	4822 051 52201
R210	100K ohm	4822 051 51004	R266	220 ohm	4822 116 52215
R211	1K ohm	4822 051 51002	R267	22K ohm	4822 051 52203
R212	1K ohm	4822 051 51002	R268	22K ohm	4822 051 52203
R213	47K ohm	4822 051 54703	R269	56K ohm, 1/4W	4822 050 25603
R214	47K ohm	4822 051 54703	R270	56K ohm, 1/4W	4822 050 25603
R215	560K ohm	4822 051 55604	R271	1K ohm, 1/4W	4822 050 21002
R216	560K ohm	4822 051 55604	R272	1K ohm, 1/4W	4822 050 21002
R217	100K ohm	4822 051 51004	R273	56K ohm, 1/4W	4822 050 25603
R218	100K ohm	4822 051 51004	R274	56K ohm, 1/4W	4822 050 25603
R219	1K ohm, 1/4W	4822 050 21002	R275	3.3K ohm, 1/2W Metal (Flame-proof)	4822 117 10192
R220	1K ohm	4822 051 51002	R276	3.3K ohm, 1/2W Metal (Flame-proof)	4822 117 10192
R221	220 ohm	4822 116 52215	R277	3.3K ohm, 1/2W Metal (Flame-proof)	4822 117 10192
R222	220 ohm	4822 116 52215	R278	3.3K ohm, 1/2W Metal (Flame-proof)	4822 117 10192
R223	560 ohm	4822 116 52226	R279	100 ohm, 1/4W	4822 050 21001
R224	560 ohm	4822 116 52226	R280	1K ohm, 1/2W Metal (Flame-proof)	4822 117 10191
R225	220 ohm	4822 116 52215	R281	1K ohm, 1/2W Metal (Flame-proof)	4822 117 10191
R226	220 ohm	4822 116 52215	R282	0.1 ohm, 3W Cement	4822 113 90241
R227	560 ohm	4822 116 52226	R283	0.1 ohm, 3W Cement	4822 113 90241
R228	560 ohm	4822 116 52226	R284	4.7 ohm, 1/2W Metal (Flame-proof)	4822 117 10193
R229	220 ohm	4822 116 52215	R285	4.7 ohm, 1/2W Metal (Flame-proof)	4822 117 10193
R230	220 ohm	4822 116 52215	R286	10 ohm, 1/2W Metal (Flame-proof)	4822 117 10188
R231	56K ohm	4822 051 55603	R287	10 ohm, 1/2W Metal (Flame-proof)	4822 117 10188
R232	56K ohm	4822 051 55603	R288	4.7K ohm	4822 051 54702
R233	1K ohm	4822 051 51002	R289	2.2K ohm, 1/4W	4822 050 22202
R234	1K ohm	4822 051 51002	R290	2.2K ohm, 1/4W	4822 050 22202
R235	100K ohm	4822 051 51004	R291	15K ohm, 1/4W	4822 050 21503
R236	100K ohm	4822 051 51004	R292	15K ohm, 1/4W	4822 050 21503
R237	68K ohm	4822 051 56803	R293	12K ohm, 1/4W	4822 050 21203
R238	68K ohm	4822 051 56803	R294	12K ohm, 1/4W	4822 050 21203
R239	100K ohm	4822 051 51004	R295	2.2K ohm, 1/4W	4822 050 22202
R240	100K ohm	4822 051 51004	R296	47K ohm, 1/4W	4822 050 24703
R241	2.2K ohm	4822 051 52202	R297	330 ohm, 2W Metal (Flame-proof)	4822 117 10122
R242	2.2K ohm	4822 051 52202	R298	330 ohm, 2W Metal (Flame-proof)	4822 117 10122
R243	100K ohm	4822 051 51004	R299	100K ohm	4822 051 51004
R244	100K ohm	4822 051 51004	R305	100 ohm, 1/2W Metal (Flame-proof)	4822 117 10189
R245	33K ohm	4822 051 53303	R306	820 ohm, 1W Metal (Flame-proof)	4822 117 10118
R246	33K ohm	4822 051 53303			
R247	1K ohm	4822 051 51002			
R248	1K ohm	4822 051 51002			
R249	180K ohm	4822 116 52213			
R250	8.2K ohm	4822 051 58202			
R251	100K ohm	4822 051 51004			
R252	47K ohm, 1/4W	4822 050 24703			
R253	100 ohm, 1/2W Metal (Flame-proof)	4822 117 10189			
R254	100 ohm, 1/2W Metal (Flame-proof)	4822 117 10189			
R255	100 ohm, 1/2W Metal (Flame-proof)	4822 117 10189			
R256	100 ohm, 1/2W Metal (Flame-proof)	4822 117 10189			

Replacement Parts List (Continued)

Ref.	Description	Part No.	Ref.	Description	Part No.
RESISTORS (Continued)			SEMICONDUCTORS (Continued)		
R307	10 ohm, 1/2W Metal (Flame-proof)	4822 117 10188	△ IC301	MC7815CT	5322 209 71759
R308	2.2K ohm	4822 051 52202	△ IC302	MC7915CT	5322 209 86361
R310	1K ohm	4822 051 51002	△ IC303	NJM78L06	4822 209 83819
R311	1K ohm	4822 051 51002	IC501	LB1641	4822 209 30193
			IC601	NJM4558S	4822 209 73303
R312	4.7 ohm, 1/2W Metal (Flame-proof)	4822 117 10193	Q001	2SC945P,Q	4822 130 41198
R313	4.7 ohm, 1/2W Metal (Flame-proof)	4822 117 10193	Q002	2SA733P,Q	4822 130 61867
R314	22K ohm, 1/4W	4822 116 52257	Q003	2SC945P,Q	4822 130 41198
			Q004	2SA733P,Q	4822 130 61867
			Q005	2SC945P,Q	4822 130 41198
R316	56K ohm	4822 051 55603	Q008	2SC945P,Q	4822 130 41198
R323	100K ohm	4822 051 51004	Q009	2SC945P,Q	4822 130 41198
R324	100K ohm	4822 051 51004	Q010	2SC945P,Q	4822 130 41198
R501	6.8K ohm	4822 051 56802	Q011	2SC945P,Q	4822 130 41198
R502	6.8K ohm	4822 051 56802	Q012	2SC945P,Q	4822 130 41198
R503	3.3K ohm, 1/4W	4822 050 23302	Q013	2SA733P,Q	4822 130 61867
R504	33 ohm, 1/4W Fuse	4822 117 10187	Q101	2SK161GR, FET	4822 130 63222
R505	10 ohm	4822 116 52176	Q102	2SC1675L	4822 130 41595
R601	1K ohm	4822 051 51002	Q105	DTC144ES	4822 130 42594
R602	1K ohm	4822 051 51002	Q106	DTC144ES	4822 130 42594
R603	220K ohm	4822 051 52204	Q107	DTA114ES	4822 130 60766
R604	220K ohm	4822 051 52204	Q108	DTA114ES	4822 130 60766
R605	560K ohm	4822 051 55604	Q109	2SC945P,Q	4822 130 41198
R606	560K ohm	4822 051 55604	Q110	2SC945P,Q	4822 130 41198
R607	560K ohm	4822 051 55604	Q111	2SC945P,Q	4822 130 41198
R608	560K ohm	4822 051 55604	Q112	2SC945P,Q	4822 130 41198
R609	47K ohm	4822 051 54703	Q113	2SC945P,Q	4822 130 41198
R610	47K ohm	4822 051 54703	Q201	2SK246, FET	4822 130 60098
R611	9.1K ohm	4822 116 52306	Q202	DTA144ES	4822 130 42594
R612	9.1K ohm	4822 116 52306	Q203	DTA144ES	4822 130 42594
R613	22K ohm	4822 051 52203	Q204	2SC1841E	4822 130 42388
R614	22K ohm	4822 051 52203	Q205	2SC2878A	4822 130 61629
R615	1.2K ohm	4822 051 51202	Q206	2SC2878A	4822 130 61629
R616	1.2K ohm	4822 051 51202	Q207	2SC2878A	4822 130 61629
R617	680 ohm	4822 051 56801	Q208	2SC2878A	4822 130 61629
R618	680 ohm	4822 051 56801	Q209	2SA988E	4822 130 42386
R619	270 ohm	4822 116 52216	Q210	2SC1841E	4822 130 42388
R620	270 ohm	4822 116 52216	Q211	2SC1841E	4822 130 42388
R621	1.8K ohm	4822 051 51802	Q302	2SC945P,Q	4822 130 41198
R622	1.8K ohm	4822 051 51802	△ Q303	2SA965Y	4822 130 63221
R623	12K ohm	4822 051 51203	X101	X'TAL 7.2MHz	4822 242 71875
R624	12K ohm	4822 051 51203	D001	1SS176	4822 130 81524
R625	10K ohm	4822 051 51003	D002	1SS176	4822 130 81524
R626	10K ohm	4822 051 51003	D004	1SS176	4822 130 81524
R629	1.5K ohm	4822 051 51502	D005	1SS176	4822 130 81524
R630	1.5K ohm	4822 051 51502	D006	1SS176	4822 130 81524
△ FR201	100 ohm, 1/2W Fuse	4822 117 10197	D007	LTL-4222N (Red)	4822 130 83205
△ FR301	1 ohm, 1/2W Fuse	4822 111 91493	D008	1N4148	4822 130 30621
△ FR302	1 ohm, 1/2W Fuse	4822 111 91493	D009	1N4148	4822 130 30621
			D010	1N4148	4822 130 30621
SEMICONDUCTORS			D011	1N4148	4822 130 30621
IC001	TMP87PM70F	4822 209 32048	D101	1N4148	4822 130 30621
IC101	LA1266	4822 209 71785	D102	1SS176	4822 130 81524
IC102	LA3401	4822 209 73434	D103	1SS176	4822 130 81524
IC103	LC7218	4822 209 30178	D104	1SS176	4822 130 81524
IC201	NJM4558DD	4822 209 81054			
IC202	NJM4558DD	4822 209 81054	D105	1SS176	4822 130 81524
IC203	NJM4558DD	4822 209 81054	D108	1SS176	4822 130 81524
IC204	STK4192-2	4822 209 70441	D109	1N4148	4822 130 30621
IC205	LC7821	4822 209 72748	D110	1SS176	4822 130 81524
			D201	1SS176	4822 130 81524

Replacement Parts List (Continued)

Ref.	Description	Part No.	Ref.	Description	Part No.
SEMICONDUCTORS (Continued)			SWITCHES (Continued)		
D202	1SS176	4822 130 81524	S018	Tact switch SKHVBB3430-CP (Memory)	4822 276 13373
D204	1SS176	4822 130 81524	S019	Tact switch SKHVBB3420-CP (Mute)	4822 276 13372
D205	1SS176	4822 130 81524	S020	Tact switch SKHVBB3430-CP (FM mode)	4822 276 13373
D206	RD5.1EB2, Zener	4822 130 32897	S021	Tact switch SKHVBB3430-CP (Tuning down)	4822 276 13373
D207	1N4148	4822 130 30621	S022	Tact switch SKHVBB3430-CP (Preset down)	4822 276 13373
⚠ D301	GBU4D	4822 130 83302	S023	Tact switch SKHVBB3430-CP (Frequency direct)	4822 276 13373
⚠ D302	B20SL	4822 130 33771	S024	Tact switch SKHVBB3430-CP (Station name display)	4822 276 13373
D303	RD5.1EB2, Zener	4822 130 32897	S025	Tact switch SKHVBB3430-CP (Sleep)	4822 276 13373
D304	RD27EB2, Zener	4822 130 32897	S201	Push switch SPUL19C611-CP (Speaker A)	4835 276 17225
	RD27EB3, Zener	or 4822 130 32736	S201	Push switch SPUL19C611-CP (Speaker B)	4835 276 17225
D308	1SS176	4822 130 81524	⚠ S401	Power switch SDDL1107U-CP (Power)	4822 276 13374
D309	1SS176	4822 130 81524	S501	Push switch SPUL12A207-CP (Loudness)	4822 276 13375
D501	RD5.1JSB2, Zener	4822 130 83304	MISCELLANEOUS		
D502	LTL-4222N (Red)	4822 130 83205	HP201	Headphone jack JY-6317-01-06063	4822 267 31625
VD101	KV1236Z1 (WHT)	4822 130 33787	JK101	2P antenna terminal AJ-2016-040	4822 290 81552
	KV1236Z1 (WHT/BLU)	or 4822 130 33787	JK201	4P RCA jack RJ-1018-010	4822 267 41082
VARIABLE RESISTORS			JK202	4P RCA jack RJ-1018-010	4822 267 41082
SFR101	Semi-fixed resistor 100KX (AM Lock sense adjustment)	4822 100 11968	JK203	4P RCA jack RJ-1018-010	4822 267 41082
SFR102	Semi-fixed resistor 200KX (FM Lock sense adjustment)	4822 100 11969	JK204	2P RCA jack RJ-1020-050 Y	4822 267 41083
SFR103	Semi-fixed resistor 100KX (FM separation adjustment)	4822 100 11968	JK205	2P RCA jack RJ-1020-110 G	4822 267 41084
VR501	Variable resistor 50KBx2	4822 101 21216	JK206	1P RCA jack 0501015-C (0)	4822 267 31616
VR601	Variable resistor 100KW	4822 101 21214	JK207	8P Speaker terminal	4822 290 81562
VR602	Variable resistor 100KBx2	4822 101 21215	CN1	3P FTW top base	4822 321 61869
VR603	Variable resistor 100KBx2	4822 101 21215	CN1'	Wire holder 3P20	---- --
SWITCHES			CN2	11P FTW top base	4822 321 61874
S001	Rotary switch MSB1.12P-20L "C" (Input selector)	4822 273 20373	CN2'	Wire holder 11P20	---- --
S003	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372	CN4	5P FTW top base	4822 321 61872
S004	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372	CN4'	Wire holder 5P20	---- --
S005	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372	CN5	3P FTW top base	4822 321 61869
S006	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372	CN5'	Wire holder 3P20	---- --
S007	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372	CN6	2P FTW top base	4822 321 61867
S008	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372	CN6'	Wire holder 2P20	---- --
S009	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372	CN7	6P FTW top base	4822 321 61873
S010	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372	CN7'	Wire holder 6P20	---- --
S011	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372	CN8	3P FTW top base	4822 321 61869
S012	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372	CN8'	Wire holder 4P20	---- --
S013	Tact switch SKHVBB3420-CP (Surround/Spatial)	4822 276 13372	CN10	Wire holder 7P25	---- --
S014	Tact switch SKHVBB3430-CP (FM/AM band)	4822 276 13373	CN10'	Wire holder 7P25	---- --
S015	Tact switch SKHVBB3430-CP (Tuning UP)	4822 276 13373	CN14	PH 2P male connector	4822 321 61868
S016	Tact switch SKHVBB3430-CP (Preset down)	4822 276 13373	CN15	6P FTW top base	4822 321 61873
S017	Tact switch SKHVBB3430-CP (Display)	4822 276 13373	CN15'	Wire holder 6P20	---- --
			RY201	Relay VB-24MBU	4822 280 80764
			RM001	Remote receiver LTM-9052A-4	4822 218 10499
			DP001	VFT Display 8-BT-130GK	4822 130 91217
			FE01	FM front END FE415-CN	4822 210 10524

Note: ---- -- ----- Indicates a not normally stocked item.

Replacement Parts List (Continued)

Ref.	Description	Part No.	Ref.	Description	Part No.
MISCELLANEOUS (Continued)			MISCELLANEOUS (Continued)		
⚠ F401	Fuse BS T2A/250V	4822 070 10089	E6	Insulator (mica) between heat sink and transistor (IC103)	---- --
⚠ F402	Fuse BS T1A/250V	4822 253 32002	E7	Square terminal pin on PCB (7 used)	---- --
⚠ AC2	AC outlet YKE31-0090	4822 267 20437	E8	RCA cable BLK-1M (GRN) (2 used)	4822 321 61875
A1	Long square terminal pin on on PCB	---- --	E9	H/P jack PCB (Blank)	---- --
A2	Long square terminal pin on on PCB	---- --	E10	VR LED PCB (Blank)	---- --
A3	Square terminal pin on PCB	---- --	E11	Power transformer PCB (Blank)	---- --
A4	Square terminal pin on PCB	---- --	E12	Main PCB (Blank)	---- --
⚠ E1	AC cord UL 7.5F BLK-2	4822 321 10926	E13	Front PCB (Blank)	---- --
E2	Cord stopper 2271	4822 325 80504	E14	Power switch PCB (Blank)	---- --
E3	Loop ant coil AJ-2017	4822 303 40059	E15	Volume PCB (Blank)	---- --
E4	Battery R03 (E) UM4E (2 used)	---- --	E16	Fuse holder PFC5000-0202(T) (2 used)	4822 265 30472
E5	FM indoor antenna	4822 303 50073	E17	75 ohm Antenna socket	4822 265 20621

Note: ---- -- Indicates a not normally stocked item.